

B2
Conclude

of the wild-type AAV Rep78 protein. Although these mutants bind less strongly, if at all, to the selected DNA(s), these mutants have other functions that are intact, and therefore have enhanced ability to complement AAV functions, that results in the generation of higher levels of AAV DNA replication and/or AAV virion numbers. These increased levels of AAV DNA replication and virions are useful for generating more rAAV for gene therapy as compared to the wild-type Rep78. But these weak or no binding AAV Rep78 mutants, also are useful in treating PV by virtue of the negative impact that the presence of AAV has on the presence of PV. Thus, any mechanisms that would increase AAV numbers is expected to decrease PV. The Rep-77^{LG} and Rep-79^{FA} mutants are examples of this type of mutant and are disclosed in the present invention.

IN THE CLAIMS:

Kindly cancel claims 1 and 21-45 without prejudice or disclaimer.

B3
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2. (Amended) An adeno-associated virus (AAV) Rep78 mutant comprising an AAV Rep78 modified protein that binds to at least one DNA sequence obtained from one or more of a papillomavirus, an AAV, an oncogene or a HIV differently as compared to the binding of the corresponding wild-type AAV Rep78 protein.

B4
Glas

4. (Amended) The AAV Rep78 mutant of claim 3, wherein said AAV Rep78 modified protein having no DNA binding or weak DNA binding to said DNA sequence obtained from at least one of a papillomavirus, an AAV, an oncogene or a HIV that results in the generation of higher levels of AAV DNA replication and virion numbers.

5. (Amended) The AAV Rep78 mutant of claim 3, wherein said AAV Rep78 modified protein having enhanced DNA binding to said DNA sequence obtained from at least one of a papillomavirus or an oncogene that results in enhanced inhibition of at least one of a papillomavirus or an oncoprotein.

6. (Amended) The AAV Rep78 mutant of claim 2, wherein said AAV Rep78 modified protein is selected from the group consisting of a truncated wild-type AAV Rep78 protein, a wild-type AAV Rep78 protein containing amino acid substitutions, a wild-type AAV Rep78 protein containing internal amino acid deletions; and a combination thereof.